

IN THE U.S. PATENT AND TRADEMARK OFFICE

Applicant(s): Johann SEITZ et al.  
Int'l Application No.: PCT/EP2004/004990  
Application No.: **NEW APPLICATION**  
Filed: January 25, 2006  
For: SWITCHING PROTECTIVE DEVICE COMPRISING FUSES

**LETTER**

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Sir:

Amended claims are attached hereto (which correspond to Article 34 amendments or to claims attached to the International Preliminary Examination Report), as required by 35 U.S.C. § 371(c)(3). The Article 34 amended claims are incorporated in the included substitute specification and Preliminary Amendment.

Respectfully submitted,

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circuit breakers or fused load disconnectors with fuses are suitable for this purpose.

The power is generally emitted from low-voltage networks via so-called "outgoers". Each outgoer should have the functions of load switching, overload switching, disconnection, short-circuit protection and overload protection. These functions are typically carried out by a plurality of individual devices. As an exception, a device is known from the Télémecanique, which is switched electromechanically and has the functions of disconnection, short-circuit protection, overload protection and switching during operation. Apart from this, this large number of functions are carried out by at least two devices.

In the case of an outgoer having a fuse and having an electronic switching device without overload protection, an overload relay also has to be attached to the circuit arrangement. In the case of an outgoer with a circuit breaker based on coordination type 2, semiconductor protective fuses must be additionally provided. In both cases, a total of three devices are thus connected in series. A relatively large amount of physical space is therefore actually required for coordination type 2 outgoers, that is to say in which fuses have to be used. Since the fuse holders and/or fused load disconnectors generally are not matched to the physical width of the electronic switching devices, this results in the space in the cabinet not being used efficiently. This results in high costs for the cabinet and for the space in which the cabinet is installed.

A cabinet for motor control is known from the document WO 03/056590 A1. A disconnection device, a protective device, an operating switching device and a discharge device are connected in series, for three phases in each case, in this cabinet. The individual devices are designed to be independent

of one another, and are electrically connected to one another in the cabinet.

The object of the present invention is thus to propose more compact switching devices for switching and protection of electrical loads.

According to the invention, this object is achieved by a protective switching device having an operating switching device, that is to say a switching device for switching a load that has to be driven on and off during operation, a disconnection device for